What is Claimed is:

1. A bonding structure with compliant bumps, comprising:

a device, further comprising:

a first substrate acting as a carrier,

at least a metal bonding pad on said first substrate, said metal bonding pad providing electrical conduction to said first substrate,

a first protection layer on the surface of said first substrate, said first protection layer covering outside of said metal bonding pads and providing insulation and protection,

at least a compliant bump providing a solder point and a conductive channel for said device, and

at least a stopper structure for controlling the deformation extent of said compliant bump to prevent said compliant bump from cracking during bonding,

a second substrate having at least a conductive electrode; and

a film between said device and said second substrate for bonding said device to said second substrate.

2. The bonding structure as claimed in claim 1, wherein said compliant bump further comprises:

a metal layer on top of said metal bonding pad and said first protection layer for bonding polymer material and said metal bonding pad;

at least a polymer bump on said metal layer for providing the main body of said

compliant bump; and

a conductive layer covering said polymer bump and forming a conductive channel with said metal bonding pad and said metal layer.

3. The bonding structure as claimed in claim 2, wherein said compliant bump covers said conductive layer of said polymer bump and the covered area ranges from 0.1% to 99% of the area of said polymer bumps.

4. The bonding structure as claimed in claim 1, wherein said compliant bump has one of the shapes of rectangle, square, trapezoid, sphere, round column, cone, an irregular shape, and any combination of the above shapes.

5. The bonding structure as claimed in claim 1, wherein said compliant bump has a convex-concave surface to reduce the contact surface with said second substrate to lower the required bonding pressure.

6. The bonding structure as claimed in claim 5, wherein the convex of said convex-concave surface has one of the shapes of rectangle, square, trapezoid, sphere, round column, cone, an irregular shape, and any combination of the above shapes.

7. The bonding structure as claimed in claim 1, wherein said compliant bump is elastic.

8. The bonding structure as claimed in claim 1, wherein said compliant bump is deformable.

9. The bonding structure as claimed in claim 1, wherein said stopper further comprises:

a metal layer on top of said metal bonding pad and said first protection layer for providing bonding to polymer material; and

at least a polymer bump on said metal layer for providing the main body of said compliant bump.

10. The bonding structure as claimed in claim 9, wherein said stoppers are distributed over said device ranging from 0.1% to 99% of the area of said device.

11. The bonding structure as claimed in claim 1, said stopper has one of the shapes of rectangle, square, trapezoid, sphere, round column, cone, an irregular shape, and any combination of the above shapes.

12. The bonding structure as claimed in claim 1, wherein said stopper is distributed outside of said compliant bump, and has one of the distribution shapes of spot, bar, continuous bar, delimited bar, arc, fan, and any other shapes.

13. The bonding structure as claimed in claim 1, wherein said stopper is distributed inside of said compliant bump, and said compliant bump has a convex-concave surface to reduce the contact area with said electrode of said second substrate to lower required pressure in bonding.

14. The bonding structure as claimed in claim 13, wherein the convex of said convex-concave surface has one of the shapes of rectangle, square, trapezoid, sphere, round column, cone, an irregular shape, and any combination of the above shapes.

15. The bonding structure as claimed in claim 1, wherein said stopper is elastic.

16. The bonding structure as claimed in claim 1, wherein said stopper is deformable.

17. The bonding structure as claimed in claim 1, wherein said device further comprises a second protection layer formed by said metal layer and a polymer layer to provide grounding and protecting said first substrate.

18. The bonding structure as claimed in claim 17, wherein said polymer layer is on top of said metal layer and made of the same material of said polymer bump.

19. The bonding structure as claimed in claim 17, wherein said second layer covers the area of said device ranging from 0.1% to 99%.

20. The bonding structure as claimed in claim 17, wherein said second protection layer is lower than said compliant bump and said stopper.

21. The bonding structure as claimed in claim 17, wherein said second protection layer is connected to said stopper.

22. The bonding structure as claimed in claim 17, wherein said second protection layer is separate from said stopper.

23. The bonding structure as claimed in claim 1, wherein said film is a conductive film.

24. T he bonding structure as claimed in claim 1, wherein said film is a non-conductive film.

25. The bonding structure as claimed in claim 1, wherein said film is a non-conductive glue.

26. The bonding structure as claimed in claim 1, wherein said device and said second substrate are bonded using one of the methods of thermal consolidation, thermal compressing consolidation, UV consolidation, ultrasonic consolidation, and any combination of the above methods.

27. The bonding structure as claimed in claim 1, wherein said first substrate is an integrated circuit, a silicon chip or a silicon wafer.

28. The bonding structure as claimed in claim 1, wherein said second substrate is a glass substrate, a polymer substrate, an organic substrate, a non-organic substrate, or a silicon substrate.

29. The bonding structure as claimed in claim 1, wherein said stopper structure is higher than said second protection layer and has a different height from said compliant bump.